

'NORAD Story' Feature Of Meeting

Army, Navy Officers To Speak To PPRAA At March 8 Gathering

Army Major Johnny G. Howorth and Navy Commander Barrie K. Trebor-MacConnell, of the Public Affairs Directorate, North American Air Defense Command (NORAD) Headquarters here in Colorado Springs, will explain the mission and activities of NORAD at the Wednesday, March 8, PPRAA meeting.

The meeting will be held, as usual in the Security Savings East Building, East Platte at Union Boulevard, starting at 7:30 p. m. Doors will be open at 6:30 for those "early comers."

NORAD is the military command which has the mission of defense of the North American continent against any possible enemy air attack on the continent.

The commander started his U. S. Navy career by enlisting in June 1952. He graduated from Officer Candidate School in July 1953. Since then his assignments have included a tour on mine-sweepers during the Korean Conflict and three tours in Vietnam--on a submarine, with the Seventh Fleet Detachment in Saigon and on the staff of the Seventh Fleet's Attack Carrier Striking Force.

Prior to reporting to NORAD, he was attached to the Fourteenth Naval District/Hawaiian Sea Frontier Staff where he was involved in seven Apollo missions, including two moon landing missions, as Public Affairs Officer for the Manned Spacecraft Recovery Force in the Pacific.

He now heads the Civil and Component Relations Division of the NORAD Public Affairs Office.

Major Howorth obtained a second lieutenant's commission in the Army Air Defense Artillery through ROTC upon his graduation from Texas Western College in El Paso in 1957.

After serving with the Army Combat Developments Command Communica-

(Continued on Page 5)

* BULLETIN *
* Information received shortly before Zero Beat press time is that *
* Colorado's bid for the 1975 ARRL *
* National Convention has been approved by ARRL Headquarters. *
* Word is that the convention will *
* be held in Denver at the Denver *
* Hilton Hotel, which, as reported in *
* the story on the January CCRAC *
* meeting, elsewhere in this issue *
* is the only facility in Colorado that *
* is large enough to handle an ARRL *
* National Convention. *



Commander Trebor-MacConnell



Major Howorth

ARRL To Raise Annual Dues On July 1st, New Officers Elected

ARRL dues will be raised July 1 to \$7.50 in the U.S., \$8.50 in Canada, and \$9 elsewhere, according to the report of the annual meeting of the ARRL Board of Directors, held in Hartford, Conn., January 20 and 21.

The rise in cost was necessary, it stated, to cover the rising cost of operations, particularly the cost of postage, and to meet future needs.

At the meeting, Harry J. Dannals, W2TUK, was elected president of the League and Charles G. Compton, W0-BUI was reelected first vice president. Robert W. Denniston, W0DX, (who declined to be considered for reelection as president) and Romer O. Best, W5-QKF, were elected vice presidents, and Carl Smith, W0BWJ, Francis E. Handy, W1BDI, and Wayland M. Grove, W5NW, were elected honorary vice presidents.

In other elections conducted at the meeting, John Huntoon, W1RW, was reelected secretary, David Houghton, treasurer, and Victor C. Clark, W4-KFC, Robert B. Thruston, W7PGY, Noel B. Eaton, WD3CJ and John Griggs W6KW, were elected members of the Executive Committee.

The board unanimously voted to seek approval from IARU Societies for Denniston to serve as president of the International Amateur Radio Union.

Among the long range plans by the ARRL are:

- *Promotion and implementation of the growth of the New Amateur Satellite Service.

- *Recommending of a Structure of Regional Frequency Coordination Committees to facilitate repeater operation.

- *Protection of present amateur frequencies and a program for attempting assignment of additional bands at any

(Continued on Page 3)

CCRAC Holds First '72 Meeting In Boulder, Makes Bid For '76 National ARRL Convention

By Oak Stockton, K0ROL

(This article arrived a week after the closing deadline for the February issue of Zero Beat, hence the delay in getting this information to Zero Beat readers--Editor).

The first quarterly meeting of the Colorado Council of Amateur Radio Clubs (CCARC) was held in the Flatirons Country Club in Boulder, January 22. Chuck Myers, WA0ZCS, and I attended as PPRAA delegates to the Council.

President Rich High, W0HEP, of the Council presided at the meeting. Rich requested that he be placed on distri-

bution for all member clubs' publications in anticipation of a statewide CCRAC bulletin, which would include items from individual clubs.

A new roster of the PPRAA, as of the membership in April, will be used as the basis of a per capita assessment of twenty cents per voting member of CCRAC member clubs. It was reported that there was \$47.20 in the Council's general fund and it was voted to levy the assessment again in order to meet increased postal expenses involved in hosting the ARRL National Convention in Colorado in 1976.

(Continued on Page 3)

ZERO BEAT

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The PPRAA meets the second Wednesday of each month in the Security Savings East Building,
East Platte at Union Boulevard, Colorado Springs

EDITORIAL

Our Part In The 1976 ARRL Convention

According to the report of the first quarterly meeting, in January, of the Colorado Council of Amateur Radio Clubs, a definite bid has been submitted for the ARRL National Convention to be held in Colorado in 1976.

It was also announced at the meeting that the only place in Colorado which could handle such a convention is the Denver Hilton Hotel.

When the subject of having the 1976 ARRL National Convention in Colorado was first discussed in a PPRAA Board of Directors meeting a couple of years ago, the possibility of having Colorado Springs as the convention site was also discussed.

In fact, the bid for the 1971 ARRL Rocky Mountain Division, which we staged so successfully at the Antlers Plaza Hotel here last June was considered somewhat of a "practice session" to prepare for the possibility of trying to get the National Convention here in Colorado Springs in 1976.

Admittedly, though, we have no such facilities in the Colorado Springs area in which as big an affair as a National Convention could be staged, sad as that situation might seem, especially after the attempt to arrange for a Civic Center in Colorado Springs was voted down. So it looks like any such plans on our part are "a bit grandiose" because of a lack of sufficient facilities here.

With this in mind, and a desire on the part of the PPRAA, as well as other amateur radio organizations in the state to get the National Convention in Colorado to show "hamdom" what a wonderful state we have, boils down to one thing:

If we can't have the convention here in the Springs, and it is held in Colorado--probably in Denver, we of the PPRAA can pitch in and offer our help

to make this the "greatest National ARRL Convention ever."

We can offer all the help and suggestions that have made our 1966 and 1971 Rocky Mountain Division Conventions such successful ones, and, during the 1967 National Convention, should it be held in Denver, take every possible means of acting as a sort of "Chamber of Commerce" group by telling those who attend the convention--"as long as you are in Colorado, why not extend your visit by making a trip down to sample the hospitality of the PPRAA and Colorado Springs?"

Now is the time to start thinking it over--what we of the PPRAA can contribute. It may seem quite a long span of time until 1967, but with all the preliminary work which must go into planning for a National Convention, there isn't really too much time.

Let's start coming up with ideas NOW--let's show the GCRAC and other amateur radio clubs in Colorado that we want to help get the National Convention somewhere in Colorado in 1976, even if we can't have it where we'd enjoy seeing it, here in Colorado Springs!

-o-

There's a possibility that a name well known in amateur radio circles for excellent equipment may disappear.

According to some sad news which has appeared in some of the radio club publications with which Zero Beat exchanges, North American Rockwell Corp. took over top management in January of Collins Radio Co. Founder Arthur A. Collins, WØCXX, was replaced as president and chief executive officer. Constant losses--some \$10 million in the last quarter--had forced Art to go to NAR for financial backing early this year.

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Not wishing to stay in a lesser post with the company he founded in 1933, Art is now completely out of the company which bears his name.

The future of the Collins line of amateur equipment? Reportedly very bleak as employment was reportedly down with sales.

Although Art's pride and joy, it is understood the amateur division is one of the losers. There goes a long-famous name!!

-o-o-o-o-

As can be seen by this month's advertisement of D & M Electronic Supply, this firm is instituting a series of "monthly specials" on items for readers of Zero Beat. New specials will be listed in the D & M advertisement each month and will be "specials" for that month only.

If you are interested in any of the "Specials" offered by D & M, be sure when you drop in to take advantage of them that you mention you saw them in the D & M advertisement in Zero Beat, in order to get the special price.

Incidentally, personnel at D & M, a firm which has supported the PPRAA and Zero Beat for many years, have told us that many persons, who do not receive Zero Beat as club members, drop into their store to pick up copies of Zero Beat which are left there for distribution to interested persons.

This provides a means of those who are not PPRAA members learning of PPRAA and its activities with the possibility that they may become members. Even some Cbers have been seen picking up Zero Beat.

---Frank, WØHWH



ROSIE'S REPORTINGS

By

Rosemarie Lewis

WAØMNL

FCC (Friendly Children Commission) issues Harmonics on:

Jenny Kay Summers, new daughter of WAØHHO/ZL2HQ, John Jr., and Lynna Summers. She was born January 20 and weighed 6 lbs, 10 oz. They are stationed in New Zealand and think that QTH fine but are looking forward to the trip back home in April 1973. Grandparents are WAØHHN, John Sr., and YF Iris.

Ian Michael, born January 29 to WAØLDU, Michael and Charleen O'Dell, of Denver, weighed 7 lbs., 8 oz. The grandparents are Eldgen and Annabell (KØWZN) Meak of Palmer Lake.

-rr-

WØDVL, Dale Green, can be found each evening at 5 p.m. on the "Confusion" net on 15 meters handling fone patches from overseas.

-rr-

LeRoy "Smitty" is enjoying his new tangerine-colored car and reports a FB trip back East.

-rr-

The Colorado YLs met at the QTH of PPRAA member WAØWAD, Ollie Shriner, in Pueblo. A total of 12 gals

ARRL Dues

(Continued from Page 1)

future High Frequency Allocation Conference.

*Studies of parts procurement for constructors.

*Establishment of VHF beacon stations.

*Sponsorship of Technical Symposia.

*A Herbert Hoover Jr. Memorial Amateur station in the West.

The plans also call for requests to the FCC for:

---Rules changes to permit Technicians and higher to use 50.0 to 50.1 MHz.

---To relax logging requirements.

---To require filtered DC power supplies on frequencies above 144 MHz as well as below.

---To Grandfather from Advanced to Extra those with 40 years amateur experience and who have reached 60 years of age.

-o-o-o-o-

It was Mark Twain, on a balmy day of Spring, who was hailed by every passing acquaintance with some observation on the state of the weather. Upon arriving at his destination and being greeted with "Nice day, Mr. Twain," he replied drily, "Yes, I've heard it highly spoken of."

attended and much was accomplished toward arrangements for the RLYL Convention to be held in Colorado in May 1972. Dues for the Colorado YL club are \$2.50 a year. The club paper, "Loose Change," has been revamped and WBØALK, Joan Ehlis is editor. In an overwhelming vote, it was agreed to take non-licensed women into the club. Dues for these are \$1.50 per year. First to join was Betty McCrary, secretary of the Pueblo Ham Club.

-rr-

Carl Drumeller, W5JJ, who recently retired from the FAA at Oklahoma City, and who started his long period of Amateur Radio in Colorado Springs in 1932, as W9EHC, is sending a wealth of news clippings and other material about the early days of Amateur Radio in Colorado Springs to add to the historical files of the PPRAA.

Carl, who later became WØEHC, and finally W5EHC, got his Extra class license in 1952 and picked up the W5JJ a few years ago. He was very active in Amateur Radio and in club activities in the Springs prior to leaving here.

He has been editor of "Collector and Emitter" of the Aeronautical Center Amateur Radio Club of Oklahoma City and made it back to the Springs for our conventions in 1966 and 1971.

He is a candidate for president of the Amateur Radio News Service in the elections currently being held.

CCRAC Meeting

(Continued from Page 1)

Slats Council, KØATZ, was elected the official National Convention chairman.

Slats announced that the Denver Hilton was the only convention facility in Colorado with adequate facilities to handle the 1976 National Convention.

CCRAC has formally bid for this convention and it will require considerable effort by all talented members of all Colorado amateur radio clubs to make the preparations.

In keeping with the need for experience, it was decided to bid for the 1974 Rocky Mountain Division ARRL Convention. Comments from all CCRAC-affiliated clubs and general members have been solicited. Experienced convention organizers, advertising and layout men, prize committeemen are sought. The dates reserved are July 15-18, 1974 for the National Convention.

The CCRAC legal fund has reached \$356.51 at the date of the meeting. A sum of \$195 was expended for attorney fees in recent litigation regarding a ham tower alleged to be a nuisance in the Denver Area. The fund is currently "frozen" pending re-definition of its purpose.

The Northern Colorado Communications Association, Inc. of the Fort Collins-Greeley-Longmont area, is the latest to affiliate with the CCRAC. It is composed of some 27 members.

The Castle Rock Repeater Group, Inc., formerly known as the "Hamsters," announced that they will soon install a VHF repeater at 6,500-foot altitude in that region.

The next CCRAC meeting will be held at the Hewlett-Packard plant in Loveland.



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President's Column

Spring is coming! 65 degree weather and the appearance of birds and insects starts one thinking of antenna projects (even though they are usually completed in October in a foot of snow), of picnics and, of course, of Field Day.

No longer, I think, can this club afford the luxury of combining a social event and a contest into Field Day. Because of the fierce competition and because of the danger of developing splinter groups, we either have to: (1) Go

all out to win, or (2) Set up for the fun in it (which is considerable).

If we choose the first, we need to gear for rapid setup, efficient equipment, optimum operator use, etc. If we elect the second, we need find a more comfortable site, plan better meal facilities, and so forth.

So come to the March meeting and let's discuss it.

73.

---George, WØGCH

By George Kowalski, WØGCH

der \$400, its light-emitting diode can display numbers having up to 10 digits plus two-digit Exponents and signs.

Wide Range Radio Frequency Wattmeter

(Reprinted from the First U. S. Army MARS Information Summary which, in turn, "Copied from Region Five Air Force MARS Newsletter via Southern California Monthly Signal" Editor).

The circuit diagram shows an arrangement which is suitable for measuring transmitter power output throughout the high frequency and into the VHF range. It is largely limited by the type of dummy antenna available. The Heathkit antenna used here is useful up through 50 MHz and isn't too bad at 144 MHz. The 50 ohm, oil immersed res-

Retirees Net Now Active

A new national net for Ham retirees has been established by WA6LVA. The network is in operation at 1500Z Monday through Friday at 14.280 MHz. Organized as an Amateur Radio Operators Chapter of the American Association of Retired Persons, WA6LVA encourages all amateurs to join in a bond of fellowship with about 100 AARPham members who regard their age as an asset "and have an ambition and objective for living."

(From "Auto Call" of the Foundation for Amateur Radio).

-o-o-o-o-

If you think today's children don't know the value of money, try giving one of them a nickle.

Technical Talks

So you thought the spark gap transmitter and Elecret capacitor microphone were dead!

Now they are being used in a sonic tablet called Graf-Pen to communicate with computers.

The spark is generated in the tip of a pen and the sound travel time to two strip mikes on the edges of the tablet is converted to X and Y coordinates. More than four million points can be resolved on a 14-inch-square tablet.

Hmm, wonder what I can do with that old Leyden jar . . .

H-P stock jumped recently with the introduction of a pocket-size calculator. It weighs nine ounces, with self-contained rechargeable batteries and does all trig. and log. functions, square root, the four usual functions and several others. Selling by direct mail for un-

News Bits

(From "Westpark Radiops" of Westlake, Ohio.)

The Goldwater Bill, permitting aliens who are permanent residents and have filed declaration of intent to become citizens to hold ham licenses is now law. British and German citizens were the first to obtain such licenses.

-o-

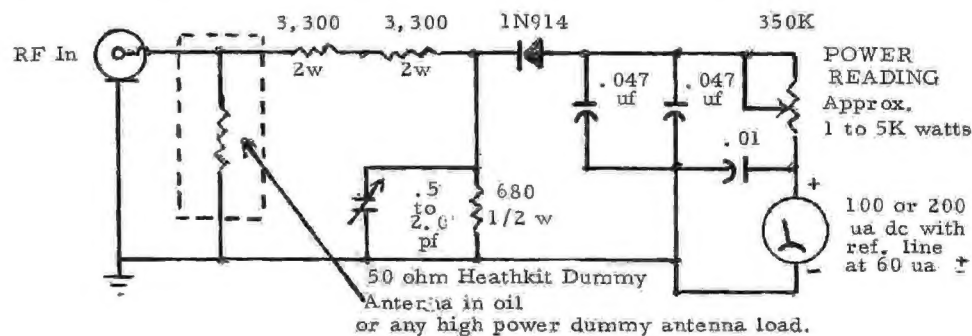
Frequency synthesizers are coming, though slowly, to relieve the FM-er from the crush of multi-crystal purchasing! A Buffalo club is reportedly in production of a unit and Vanguard Labs (known for preamps) is developing units that will be in the \$100 to \$150 price range.

-o-

Ma Bell is reportedly on a crusade against "little blue boxes" so it is heard that a ham has been arrested for using a Touchtone pad with his HT.

-o-

The Morse Telegraph Club is inviting amateurs to join their ranks. The club is composed of brass pounders from railroads, telegraph, wire service and news bureaus. If interested, write: O. Hugh Braese, President--1501 West Shields Avenue (Apartment 43), Fresno, Calif.



istor can be used for checking powers up to 500 watts for SHORT periods of time. 200 to 300 watts can be run into it for a few minutes without boiling the oil.

The power indicating circuit is in shunt to the large 50 ohm resistor. It consists of two 3,300 ohm, 2 watt carbon or carbon film resistors in series with a smaller 680 ohm resistor. A 1N914 fast computer diode rectifies the RF voltage across the 690 ohm resistor. The diode capacitance and a small 1/2 to 2 pf trimmer condenser are shunted across the 680 ohm resistor.

This scheme tends to equalize the divider circuit for the higher frequencies such as 50 MHz or higher. The 3,300 ohm resistors have shunt capacity and the capacity divider for RF

watts. A calibrated SWR power meter is needed when calibrating the variable resistor scale in watts. A transmitter with an adjustable power output is also needed.

A small meter box or minibox may be used for mounting all of the elements of the indicator and fastened to the top of the RF resistor can or heat radiator. The RF leads should be short to minimize inductance effects.

Two sizes of RF by-pass condensers are needed to cover the frequency range of 2 MHz up to the VHF region. The meter can be mounted with the variable resistor separately, if desired, for convenient readings. The calibration is normally made for carrier power in watts, but it can be used with SSB signals as a test system.

ROUTE MANAGER'S CORNER

By "Bud" Thompson
WØLRN

LOCAL NETS

The National Traffic System scheme for relaying formal traffic defines four levels of nets: (1) Area, (2) Region, (3) Section and (4) Local. (Ref: The Radio Amateur's Operating Manual, pages 89-93, ARRL). The first three have been discussed in this column and in ARPSC talks at various club meetings.

Local nets serve important functions: (1) training, (2) relay from one telephone district to another (Denver-Greeley, etc.) and (3) establishing efficient relay routes within a local telephone district in order to be prepared for emergency situations.

Since all communities are not served directly by a traffic net, messages are relayed to the closest point on low band NTS and then telephoned (local call) or mailed (8¢) to effect delivery. When a metro area has an active local net(s), the messages are listed there and passed to the station nearest the destination point.

Within the NTS guidelines, local nets should meet twice daily: (1) around 6 p. m. local for outgoing traffic to section net and (2) around 10:45-11:00 p. m. for dissemination of incoming traffic from NTS.

In practice, however, most local nets take the form of AREC or RACES emergency/training nets, meeting only once a week. Such nets may become NTS affiliated by sending a represent-

ative to a section net on the same night. Obviously, the use of a weekly net for local delivery is time-frame limited, and at best is a training measure.

The increasing "local" activity on VHF-UHF on both voice and unattended RTTY autoprint could negate the NTS local net concept. Extending local line of sight coverage to outlying telephone districts by use of repeater facilities emphasizes this even more. With several base stations squelch/monitoring and some even scan/monitoring, it is a simple matter to relay "local" traffic without an organized formal net and the resulting time-frame problem.

When a low-band traffic net gets a message for delivery, he can simply transfer it via a VHF-UHF facility within the "local" area.

The use of both simplex and repeater facilities is warranted over using the long-range overcrowded bands for local work and certainly is in keeping with Amateur Radio Public Service, MUF, and state-of-the-art concepts. Additionally, the use of frequencies above 50 MHz is the only way that the Technician class licensee may become involved in on-the-air public service activities.

I urge any individual, organization, or group in Colorado or Wyoming to participate in this type of activity. If you are interested, you may drop me a line (radiogram?) letting me know of your potential and perhaps we can publish a list of individuals, repeaters, modes, delivery areas, etc., that could be helpful in both traffic work and emergency communications.

L'affaire EOLE— A French 'Goof'

Very few classic "goofs" in the scientific world seem to receive coverage in the scientific journals. But the fantastic French fiasco of September 11, 1971 was happily covered in the October 29 issue of Science.

Seems the French have this weather satellite EOLE, in orbit 560 miles above the earth. EOLE's job is to relay data from more than 100 weather balloons, which have been launched from points in Argentina.

On commands from the satellite, the balloons transmit a whole blast of data back to EOLE where it is stored, then relayed to the Brevigny center near Paris.

To eliminate useless data from balloons which stray outside the area being studied, French engineers equipped the gasbags with explosive charges which EOLE could detonate on command--singly or all at once.

You guessed it! On the 346th orbit, French personnel (Murphy?) inadvertently sent up the general "destruct" command instead of the "interrogate" command. Seventy two expensive, sophisticated weather balloons augered into the South Atlantic.

We understand "procedural changes" have been instituted at mission control.

(From FDT News Letter, via the Central California Radio Council's "Circule.")

-o-o-o-o-

These days only a millionaire can buy all the things "you can't afford to be without" according to the ads.

NORAD Story

(Continued from Page 1)

tions Electronics Agency at Fort Huachuca, Arizona, he completed airborne training at Fort Benning, Georgia, counterinsurgency operations training at Fort Bragg, North Carolina, and Vietnamese language training at Monterey California.

He has served two tours in Vietnam, one with a District Advisory Team in Lam Dong Province and one with the Province Advisory Team in Long Khanh Province.

In addition to a series of color slides to illustrate the activities of the various component units of NORAD which contribute to its fulfilling its continental air defense mission, the two NORAD speakers will have film to show other operations, including those in the "hole in the mountain"--the Combat Operations Center inside Cheyenne Mountain.

This should be a most interesting evening of entertainment and PPRAA members and their visitors should not miss it. Plan to bring a friend!

There will, of course, be the usual door prizes and coffee break to add to the pleasure of the March 8 meeting.

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UNDERSTANDING COMPUTERS

By Robert "Bob" Shriner
WA0UZO

From the Pueblo Ham Club "Grid Leak"

Part 2

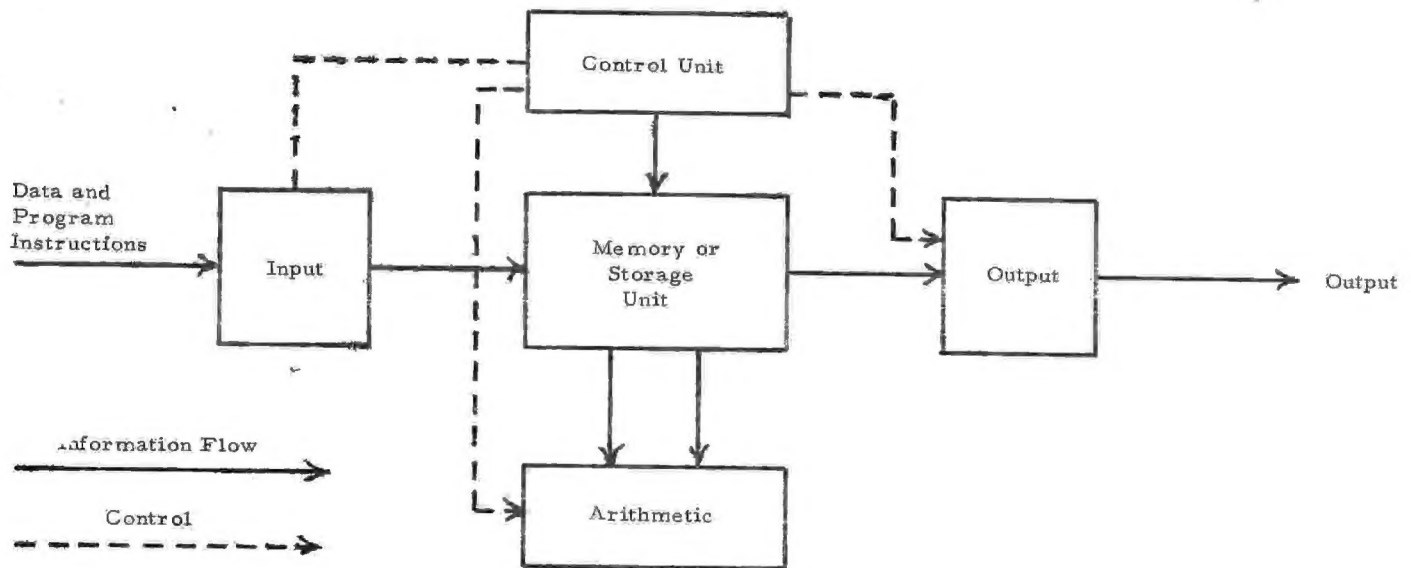
As we progress further into our discussion of understanding computers, please do not get the impression that I know very much about them. Most all of the information contained herein has been taken from books and instruction manuals. Like the old boy said, "I ain't so very smart, but I read a lot."

Now that we have cleared that up, let us go into the functional operation of the computer.

Regardless of size, cost or speed, all digital computers contain the following five functional units: 1. Input Unit, 2. Control Unit, 3. Memory Unit, 4. Arithmetic Unit, 5. Output Unit.

One must be familiar with the functional building block of the computer to enable him to understand the circuits to be discussed later and to relate to their purpose.

Following is an analysis of the block diagram broken down into individual units.



1. Input Unit.

- Data and program instructions are fed directly into the Input Unit. As in all communication devices, inputs must be presented in a form which the machine can understand. The programmer must "talk" to the computer in its own language. This is accomplished by means of magnetic tapes, punched cards, etc. In the future, however, even handwritten instructions may be possible.
- The Input Unit "reads" this information and passes it on to the appropriate unit.

2. Control Unit.

- The Control Unit is the brain of the computer. It decodes the instructions and generates commands to direct the overall operation of the other units. These commands are in electrical form. Although the Control Unit is considered to be a separate unit, it is not physically located on an individual chassis, as are the other units. In reality, it is spread throughout the machine, performing its primary functions:
 - (1) Directing the flow of information.
 - (2) Observing the results of each step to detect errors.
 - (3) Controlling the sequential operation of each unit at the proper time.
- Two types of outputs are obtained.

3. Arithmetic Unit.

- The Arithmetic Unit can be compared to a calculating machine. It performs the actual arithmetic operations called for in the instructions. Numbers are fed into it according to instructions from the Control Unit.
- Some circuits commonly found within the Arithmetic Unit are:
 - (1) Quasi-static voltages.
 - (2) Dynamic signals - usually pulses used to trigger other units or for timing their operation.

- (1) Counters and Shift-Registers.
- (2) Logic Adders.
- (3) Complementary Gates.

4. Memory Unit.

- All instructions and problem numbers must be fed into the Memory Unit by the Control Unit prior to problems solution. Here they are held until needed by the Arithmetic and Control Units. Without this prior information, problems cannot be resolved by the computer.
- During each individual step when solving a problem, the Memory Unit stores the immediate results.
- The unit is composed of numerous individual cells, each capable of storing one bit of information. The principle of the Memory Unit is similar to that

of the common tape recorder.

5. Output Unit.

- The Output Unit displays the results of calculations performed within the computer. Final answers alone, or step by step results of a solution may be displayed.
- Typical output devices include: punched cards, magnetic tapes, typewriters and cathode-ray tubes.

Well, if you ain't swamped now, just wait until next month when we will start discussion of Logic circuits.

The SCM Shack = = =

By Clyde Penney, WAØHLQ

I am sure that all amateurs are aware that we are under pressure from numerous other radio services to relinquish some of our Amateur frequencies for their use. A perusal of the proceedings of the World Administrative Radio Conference for Space Telecommunications held in Geneva June 7 to 17, 1971, reveals that although we held our own in the final analysis, things looked rather bleak for Amateur frequencies throughout a considerable portion of the session.

I would like to quote two paragraphs of President Denniston's report to ARRL on the Space Conference:

"The enormous amount of work done in the past few years is paying off here and now at this conference. Without it we would probably have lost a large amount of our Amateur frequencies which we use at our stations on the ground, due to the tremendous pressure there is here from other services to obtain more frequencies in all parts of the spectrum and particularly above 30 MHz. So far we are faring well in this regard.

"The importance of our establishing and strengthening liaison with our governments cannot be overemphasized. The future of Amateur Radio depends on it as was so vividly demonstrated at this conference."

I should like to urge each one of you to go back and re-read those two paragraphs from President Denniston's report, and then stop and think about them for a few minutes.

Amateur Radio has always had to guard its frequencies against inroads from other services, but never against the kinds of pressure being brought to bear at this time. All indications are that these pressures will continue to mount in the years to come. Only by presenting a solidly united front can the Amateur service hope to resist these pressures and retain our frequencies in the future.

As I have stated before in previous articles for this column, the most effective way to present such an organized front is through the ARRL. So once again I urge all Amateurs everywhere to put aside any personal differ-

ences you may have with the ARRL and become a member of that organization, thus doing your part to resist these mounting pressures from other radio services against the Amateur frequencies.

If we permit ourselves to be torn asunder by bickering within our own house, that situation will most certainly be exploited by pressure groups in other radio services.

The old adage was never more true than when applied to our situation today - "United we stand, Divided we fall." And furthermore, if, through internal bickering, we allow ourselves to be divided, and thus fall, we will have no one to blame but ourselves! **THINK ABOUT IT!**

DON'T LET THIS HAPPEN TO YOU!!!



He suddenly remembered that he had let the March 8 meeting go by without paying his due and was now not able to participate in PPRAA activities or receive future copies of Zero Beat!

Novices' Notations

By Mike Anderson, WNØEQM

To all hams who are holding their breath while I work for my General Class license, please breathe! I don't plan to go to Denver until I work all 50 states!

I was on just the other day and I was scanning 40 meters and from one end to the other there was nothing but hetrodyne. Is there nothing that we, the hams, can do about this threat to the poor Novice? I couldn't even work a Kansas contact at all.

I want to know what outside work has to be done to secure membership. I have been doing my best with three guys toward their Novice tickets. DonCarlos must not be left holding the bag when the club is sitting in front of SSB rigs.

Please encourage more people to become hams--or would you rather see more Cbers? So give DonCarlos some help!

I would like to thank Wayne Brown and the other hams who offered me coax when I was in desperate need. Wayne went out of his way to bring the coax to my house clear on the other side of town and help me set up my 40 meter dipole. That is what ham radio is all about.

To all hams--if you want to inform and Novice of any equipment on sale--please write me. I know of many Novices who don't have rigs. Send the information on equipment to: Mike Anderson, WNØEQM, 510 West Polk St., Colorado Springs, 80907.

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Two way communications via CW, SB, RTTY and SSTV will be possible. Much valuable AFSK telemetry data should be recordable on magnetic tape by any amateur or SWL and easily played through a TU, punched on tape for relay to various processing centers.

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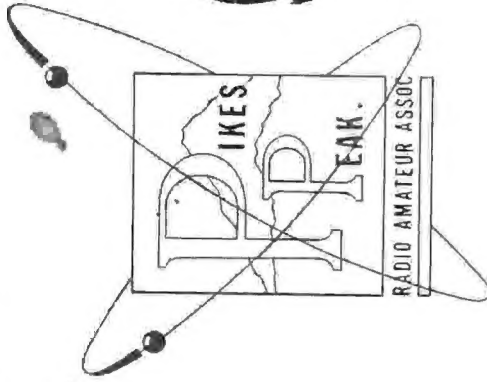
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March 1972



If you fail to receive your April or subsequent issues of Zero Beat, one of two things may be the reason.

(1) You haven't paid your 1972 dues. (2) You have moved and failed to notify the club of your new address.

It has been the policy of the PPRAA to allow a certain "leeway" in paying dues. Members have time until the March meeting to pay their dues for the year and still retain their "good standing status." After that they are dropped from the membership rolls. This also, of course, means they are dropped from the Zero Beat circulation list.

You wouldn't enjoy paying for some other person's share of the cost of PPRAA activities of the cost of mailing Zero Beat. You can't expect any other person or persons to enjoy paying your share. If you have not yet paid your 1972 dues--do so by the March 8 Meeting.

The U. S. Postal Service doesn't enjoy delivering Zero Beat to a wrong address, having to indicate "No forwarding address" or forwarding it at its expense, or returning it to us. That means just that much handling of a piece of mail. If undeliverable and returned, it means the price of a stamp and the mailing time wasted.

SO--give the other members of the PPRAA and the Postal Service a "break"--pay your dues and keep us informed of address changes so we can continue sending Zero Beat to you and at the correct address.